



State of Utah
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH

Norman H. Bangerter
Governor

Suzanne Dandoy, M.D., M.P.H.
Executive Director

Kenneth L. Aikema
Director

288 North 1460 West
P.O. Box 16690
Salt Lake City, Utah 84116 0690
(801) 538-6121

July 8, 1991

Western States Minerals Co.
c/o Mr. Richard A. Westfall
Davis, Graham and Stubbs
P.O. Box 185
Denver, CO 80201-0185

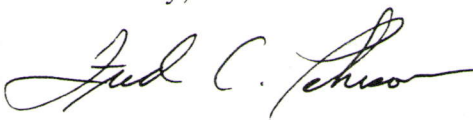
RE: Ground Water Contamination on Drum
Mine Property

Dear Mr. Westfall:

Information submitted by Jumbo Mining Company in support of a ground water discharge permit application for a new leach pad at the Drum Mine property shows that ground water at the site is contaminated with cyanide, arsenic, and other metals. Enclosed is a copy of our letter to Jumbo Mining asking them to begin investigation and corrective action to contain the contamination, as well as a summary of cyanide detections and metal concentrations greater than maximum contaminant levels in monitor wells at the site.

Because Western States Minerals operated heap leach facilities on the site for several years before Jumbo Mining's purchase of the property, Western States is a potentially responsible party in this case. As soon as possible, Western States should submit a statement explaining their role and responsibility in causing this contamination. We would appreciate your response within the next 30 days.

Sincerely,


for Don A. Ostler, P.E., Director
Bureau of Water Pollution Control

Enclosure

DAO:MN:rp

cc: Dwight Crossland, Western States
Ed King, Jumbo Mining Co.
Wayne Hedberg, Division of Oil, Gas, and Mining

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DIVISION OF
OIL GAS & MINING



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Salt Lake City, Utah 84116-0690

801/538-6121

June 24, 1991

Mr. Ed King
Jumbo Mining Co.
6305 Fern Spring Drive
Austin, TX 78730

RE: Ground Water Discharge Permit for New
Leach Pad and Existing Contamination

Dear Mr. King:

On June 13, 1991 we received a conceptual design report for Jumbo's proposed new leach pad at the Drum Mine, as well as additional information on existing ground water quality at the site and conceptual closure plans that we requested for Jumbo's ground water discharge permit application.

The conceptual design of the leach pad appears to allow no intentional direct discharge to waters of the State. A draft ground water permit will be prepared and released for public comment upon review of final detailed plans and specifications for the construction of the leach pad, process ponds and other components which contain the process water which would indicate tentative approval of the plans by this Bureau.

Information submitted by Jumbo in support of its ground water discharge permit application indicates that the perched aquifer which underlies the site of the proposed leach pad has been contaminated by cyanide and contains elevated levels of arsenic and other metals. This contamination was probably caused by previous gold leaching activities at the Drum Mine and is a violation of § 26-11-8 of the Utah Water Pollution Control Act.

Jumbo Mining should take immediate action to contain the contamination and prevent its movement towards other waters of the State and develop a corrective action plan which would represent a cost-effective and permanent solution to the release. Jumbo should conduct its own investigation of this contamination and a feasibility study of possible options for containing and remediating the contaminated ground water. You are requested to provide a proposed plan for addressing the above and including appropriate milestones and accompanying time schedule.

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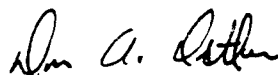
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According to information previously submitted by Jumbo, the perched aquifer flows preferentially to the southwest of the new leach pad site along fractures in the volcanic bedrock. Ground water occurs at fairly shallow depths within the area a few hundred feet southwest of the proposed leach pad site. A possible solution Jumbo may want to investigate is the construction of a trench, drain, or pumping well network in this area that would intercept the flow of contaminated ground water. Water produced by this drainage may be used by Jumbo in a permitted leach operation. If Jumbo elects to use such a system, the quality of the produced water should be monitored on a regular basis, and the analytical results reported to this Bureau.

If you have any questions on the ground water discharge permit or remediation requirements, please call Mark Novak at (801) 538-6146.

Sincerely,



Don A. Ostler, P.E., Director
Bureau of Water Pollution Control

DAO:MN:rp

cc: David Rupp, BWPC
David Hartshorn, Jumbo Mining, Delta, UT
Wayne Hedberg, Div. of Oil, Gas and Mining
Michael Jackson, Bureau of Land Management, Richfield
Central Utah District Health Dept.

Q:JUMGOWREM.LTR

drill hole	date sampled	total cyanide	arsenic	cadmium	chromium	lead	mercury
MH-2	5-91	0.34					
MH-3	5-91		0.055			0.210	
MH-7	5-91	0.17	0.093		0.240	0.310	
MH-8	2-90	0.60					
MH-8	5-91	0.21					
MH-17	2-90	0.44					
MH-17	5-91	0.21				0.280	
MH-19	5-91	0.03		0.013			
MH-23	5-91					0.140	
MH-24	5-91		0.100		0.280		
MH-25	5-91		0.055		0.110		
MH-32	1-91		0.056				
MH-33	5-91	0.27			0.090		
MH-34	5-91	0.44					
MH-35	1-91						0.007
MH-40	1-91	0.016					
MH-44	5-91		0.080				

Cyanide detections and metal detections greater than maximum contaminant levels in ground water samples from the Drum Mine, concentrations in mg/l.

Q:jummetal.TBL

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W-1

W-2